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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,279	09/16/2003	Joseph Khatami	400.219US01	1465
27073	7590	02/13/2006	EXAMINER	
LEFFERT JAY & POLGLAZE, P.A. P.O. BOX 581009 MINNEAPOLIS, MN 55458-1009			HEIN, GREGORY P	
			ART UNIT	PAPER NUMBER
			2188	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 - 2, 8 – 10, 17, 28 - 29, 35, 40, 43, 47 – 48 and 53 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,279,069 (Robinson et al).

As per claims 1, 17, 29, 40, 47 – 48, and 53 Robinson teaches:

Querying at least one memory device to discover the memory type and configuring the driver to access the at least one memory device according to the discovered memory type (Robinson Col. 5 lines 23 – 33 The information returned from the device after a query is used to initialize the driver for the device.)

With respect to claim 47, it is inherent to the base claims that the host is capable of querying the memory device.

As per claim 2, Robinson teaches:

Querying at least one memory device to discover the memory type further comprises querying at least one Flash memory device to discover the memory type (Robinson Col. 5 line 25).

As per claim 8, Robinson teaches:

Querying an architecture feature of the memory device (Robinson Col. 5 lines 23 – 33.)

As per claim 9 and 35, Robinson teaches:

The driver contains at least one of a low level driver, a data manager, and a file manager (Robinson Col. 5 line 31 "... a system device driver ...").

As per claim 10, Robinson teaches:

Configuring the driver to access the at least one memory device with low-level driver operation parameters and memory device command sequences to match the discovered memory type (Robinson Col. 5 lines 30 – 33 The data from the query provides the low-level driver initialization parameters.)

As per claims 28 and 43 Robinson teaches:

The host is one of a processor and an external memory controller (Robinson Fig. 1 clearly shows a CPU further explained in Col. 5 lines 40 – 43 and Robinson Fig. 3 clearly shows an external type memory controller further explained in Col. 8 lines 25 – 28.)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2188

4. Claims 4, 23, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,279,069 (Robinson et al) and further in view of U.S. Patent 6,907,496 (Langford et al).

As per claim 4, 23, and 34:

Robinson does not teach while discovering the memory type writing to an address of the memory device and reading a response from the address.

Langford teaches writing to an address of the memory device and reading a response from the memory address during query the device to discover the memory type (Langford Col. 4 lines 4 – 13 The geometry information contributes to identifying the memory device type which is discovered by writing to an address and reading the response.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Langford with Robinson since Langford provides an improved method for detecting the configuration of flash memory devices (Langford Col. 5 lines 52 – 55.)

5. Claims 5 – 7, 20 – 21, 32 – 33, 44 – 46, and 50 - 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,279,069 (Robinson et al) and further in view of U.S. Patent 6,275,412 (Kasa et al.)

As per claim 5, 22, 33, 46, and 52:

Robinson does not teach querying a common flash interface (CFI.)

Kasa teaches querying a CFI to discover the memory type (Kasa Col. 11 lines 56 – 67.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the CFI specification as disclosed in Kasa with Robinson since it is

Art Unit: 2188

a well known industry standard specification in the art that allows configuration information from flash memory devices to be determined from a common interface (Kasa Col. 11 lines 58 – 61.)

As per claim 6, 20, 32, 44, and 50:

Robinson does not teach querying a protection register to determine the memory type.

Kasa teaches querying a protection register to determine the memory device type (Kasa Col. 12 lines 20 – 30 and Kasa Col. 12 lines 35 – 43 Special purpose registers are a part of the CFI standard.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the CFI specification as disclosed in Kasa with Robinson since it is a well known industry standard specification in the art that allows configuration information from flash memory devices to be determined from a common interface (Kasa Col. 11 lines 58 – 61.)

As per claim 7, 21, 45, and 51:

Robinson does not teach querying an addressable memory ID stored in the memory device.

Kasa teaches querying an addressable memory ID stored in the memory device (Kasa Col. 12 lines 20 – 30 Specifically, lines 25 – 26 teach a 16-bit identification as part of the CFI specification.) It would have been obvious to combine these features of Kasa with Robinson for the reasons set forth above.

Art Unit: 2188

6. Claims 3, 18, 30, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,279,069 (Robinson et al) and further in view of U.S. Patent 6,970,969 (Wong et al).

7. As per claim 3, 18, 30, and 41:

Robinson does not specifically teach that the flash memory device comprises a NAND type or NOR type flash memory device.

Wong teaches both a NAND type flash and a NOR type flash (Wong Col. 8 lines 6 – 11.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine this feature of Wong with Robinson since NAND and NOR flash type memories are both well known in the art to those of ordinary skill as Wong discloses (Wong Col. 8 lines 6 – 7.)

8. Claims 19, 31, 42, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,279, 069 (Robinson et al) and further in view of U.S. Patent 6,650,366 (Parulski et al) and U.S. Patent 6,987,927 (Battaglia et al).

As per claims 19, 31, 42, and 49:

Robinson does not teach using a PCMCIA-ATA, a Compact Flash (CF), a USB Flash, Memorystick, and a multimedia card (MMC) compatible interface.

Battaglia teaches using a Memorystick interface and a Multimedia card interface (Battaglia Col. 16 lines 4 – 11) and a USB interface (Col. 15 lines 2 – 6). The interfaces are used with flash memory devices (Battaglia Abstract.)

Parulski teaches using a PCMCIA-ATA interface (Col. 4 lines 30 – 35.)

It would have been obvious to combine these features of Parulski and Battaglia to Robinson since the interfaces set forth in Parulski provide a removable non-volatile storage device (Parulski Col. 4 lines 30 – 34) and the features of Battaglia provide a wide range of memory interface types (Battaglia Col. 16 lines 4 – 7.)

Allowable Subject Matter

9. Claims 11 – 16, 25 – 28, and 36 – 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

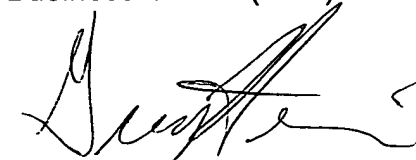
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory P. Hein whose telephone number is 571-272-4180. The examiner can normally be reached on M-F 8-4:30.

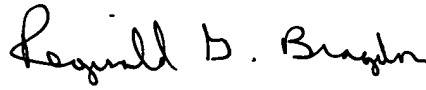
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2188

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory Hein
2/1/2006



REGINALD G. BRAGDON
PRIMARY EXAMINER